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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,966	01/15/2002	Bok-Beum Kim	053933-5017	3100

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EXAMINER

LE, LANA N

ART UNIT PAPER NUMBER

2685

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/044,966	Applicant(s) KIM ET AL.	
	Examiner Lana N Le	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 15 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings filed 09/28/04 is for another application with title "roll-over bag having a Reinforced Perimeter Seal and associated method for producing a flat reinforced seal in a roll-over air bag connector improved receptacle therefore".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Regarding claim 1, Marqvardsen et al disclose a speaker assembly (see figs. 5-6) for mobile phones (communication devices) having a main board (ground plane 11) covering a back surface of speaker 2 (page 14, lines 6-29);

an air duct (air passage through a hole or an opening through ground plane 11) mounted on the back surface of the speaker 2 (see fig. 6) such that the air duct penetrates the main board 11, thus

allowing air to circulate from the speaker 2 to a region behind the speaker 2 (page 14, lines 6-29).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (US 6,321,070) in view of Marqvardsen et al (WO 00/38,475).

Regarding claim 2, Clark et al disclose a speaker assembly for mobile phones, comprising:

a front cover (housing portion containing openings/sound holes 1614; fig. 11) having a plurality of sound holes 1614 formed there through;

a rear cover 1602 assembled with the front cover in such a way as to form a predetermined cavity 1620 between the front and rear covers;

a speaker 1606 installed in said cavity in such a way as to face the sound holes 1614 of the front cover (housing portion containing openings 1614), and generating a sound pressure of a predetermined magnitude (col 11, lines 6-36);

However, Clark et al do not disclose:

a main board attached to a back surface of the speaker for processing various kinds of data, and having a through hole communicating with a rear section of the speaker; and

an air duct connected at an end thereof to the back surface of the speaker (and extending through the through hole of said main board, whereby

the air duct allows air to circulate from the rear section of the speaker to a space formed between the main board and the rear cover.

Marqvardsen et al disclose:

a main board (ground plane 11) attached to a back surface of a speaker (2) for processing various kinds of data, and having a through hole (hole or opening through ground plane 11) communicating with a rear section (back end of speaker) of the speaker 2 (page 14, lines 6-29); and

an air duct (air passage through hole or opening of ground plane 11) connected at an end thereof to the back surface of the speaker (see fig. 6) and extending through the through hole of said main board 11, whereby the air duct allows air to circulate from the rear section of the speaker to a space formed between the main board and the rear cover (page 14, lines 6-29).

Regarding claim 3, Clark et al disclose a speaker assembly for mobile phones (fig. 11), comprising:

a front cover 1602, 1604 having a sound hole 1618 formed therethrough;

a rear cover (housing portion containing openings 1614) assembled with the front cover in such a way as to form a predetermined cavity 1620 between the front and rear covers, and having a plurality of sound output holes 1614 at a position corresponding to said sound hole 1618;

a speaker 1606 installed in said cavity in such a way as to face the sound output holes 1614 of the rear cover (col 11, lines 6-36).

Clark et al do not disclose:

a main board attached to a back surface of the speaker for processing various kinds of data, and

having a through hole communicating with a rear section of the speaker;
a display interposed between the main board and the front cover; and

an air duct connected at a first end thereof to the back surface of the speaker,
and

extending through the through hole of the main board in such a way as to be connected at a second end thereof to the front cover while surrounding an edge of the sound hole of said front cover, whereby the air duct allows air to circulate from the rear section of the speaker to the outside of the front cover.

However, Marqvardsen et al disclose:

a main board (ground plane 11) attached to a back surface of the speaker (2) for processing various kinds of data, and

having a through hole (hole or opening of ground plane 11) communicating with a rear section of the speaker 2 (page 14, lines 6-29);

a display 3 (fig. 2) interposed between the main board and the front cover (top housing portion of communication device of fig. 2); and

an air duct (air passage through hole or opening of ground plane 11) connected (see fig. 6) at a first end thereof to the back surface of the speaker 2 (page 14, lines 6-

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29), and extending through the through hole of the main board in such a way as to be connected at a second end thereof to the front cover (housing portion of communication device facing away from main board toward speaker 2) while surrounding an edge of the sound hole of said front cover (sound hole from speaker 2 through printed circuit board that covers top of communication device; fig. 2, page 11, lines 16-23), whereby the air duct allows air to circulate from the rear section of the speaker to the outside of the front cover (air passage travels through sound hole from speaker 2 through printed circuit board that covers top of communication device; figs. 2, 6; page 11, lines 16-23; page 14, lines 6-29).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lana N Le whose telephone number is (703) 308-5836. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F Urban can be reached on (703) 305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Lana Le", with a stylized flourish at the end.

Lana Le

November 23, 2004